

**Friday January 21, 2022**  
**Our Saviors Lutheran Church**  
**1035 Carol Lane Lafayette**  
**\* License Testing 5:30pm \***  
**Meeting Begins 7:00pm**

<b>New Members</b>	<b>2</b>
<b>Officers and Appointees</b>	<b>2</b>
<b>President's Message</b>	<b>3</b>
<b>Programs Committee</b>	<b>4</b>
<b>Annual Financial Report</b>	<b>5</b>
<b>Club's 75th Anniversary</b>	<b>5</b>
<b>2022 Training Schedule</b>	<b>7</b>
<b>Public Service Events</b>	<b>8</b>
<b>Classic Radio Exchange</b>	<b>10</b>
<b>Winter Field Day</b>	<b>10</b>
<b>New Q Signals for 2022</b>	<b>11</b>
<b>Club Website Update</b>	<b>12</b>
<b>Digital Radio News/Notes</b>	<b>13</b>
<b>Meeting Minutes</b>	<b>17</b>
<b>Ham Radio Outlet</b>	<b>21</b>
<b>Club Repeaters/Nets</b>	<b>22</b>
<b>Club Calendar</b>	<b>22</b>

## THIS MONTH'S MEETING

# ARRL FIELD SERVICES EXPLAINED

Join past MDARC president and current ARRL East Bay Section Manager Mike Patterson, N6JGA and ARRL Field Services Team Supervisor Steve Ewald, WV1X as they update our club on what's new in Newington.



**Steve Ewald, WV1X**



**Mike Patterson, N6JGA**



**Martin Luther King Jr. Day**

**JANUARY 17, 2022**

*Our in-person meeting will also be held virtually, via the Zoom video system. The meeting access ID and password will be distributed via groups.io email announcement. The meeting will also be shown on the club digital amateur television repeater, which is live streamed at: <http://w6cxatv.mdarc.org/> and also live streamed on YouTube on the **Media MDARC** channel.*

**Mount Diablo Amateur Radio Club W6CX**  
**P.O. Box 23222 Pleasant Hill, CA 94523**  
**(925) 288-1730**

*The Carrier* is a monthly publication of the Mount Diablo Amateur Radio Club (MDARC). It is the policy of the editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio and of interest to MDARC members, and provided space is available.



**President** - Ed Morales, KJ6KYT

**Vice President** - vacant

**Secretary** – Brian Lotter, KM6NGS

**Treasurer** - Gene Sylls, KG6EYE

**Emergency Coordinator** - Larry Loomer, KI6LNB

**Directors At Large**

Trevor Hall, WA6JAU      Cal Vasquez, K6VT  
 Larry Bradley, KK6QPE      Mike Warren, W6MEW

**Membership Chair** – Jan Kulisek, KM6NFC  
 mdarcmembership@mdarc.org

## **PACIFICON 2022**

**Chair:** Julie Mah, WJ8MAH

**Registration:** Debbie Deeble, KN6DOM

**Treasurer:** Jim Siemons, W6LK

**Secretary:** Jan Kulisek, KM6NFC

## **COMMITTEE CHAIRS AND COORDINATORS**

**Annual Auction** - Jim Siemons, W6LK

**Communications Trailer** - Mike Warren, W6MEW

**Communications Van MDARC-1** - Jim Tittle, K6SOE

**Digital Media** - Mike Patterson, N6JGA

**Education & Training** - John Primus, AF6RJ

**Field Day** - Larry Loomer, KI6LNB

**Good & Welfare** - Diana Sage, KA6TZU

**Holiday Dinner** - Misa Siemons, KJ6BUE

**License Testing** - Larry Loomer, KI6LNB

**Outreach** - Dick Wade, WM6G

**Public Service** - Lisa Anthony, K6PIA

**Radio Equipment Lending** - Cal Vasquez, K6VT

**Refreshments** - Elizabeth Styles, KG6HLV

**Repeater Trustee W6LGW** - Dick Brown, KT6X

**Repeater Trustee W6CX** - Jim Tittle, K6SOE

**Scholarship** - Janice Fujii, KG6VTD

**Technical Committee** - Jim Tittle, K6SOE

*The Carrier* Newsletter

**Editor** - Matthew G. Vurek, N4DLA  
 n4dla\_cs245@yahoo.com

**Proofreader** - Larry Loomer, KI6LNB

**Printing & Distribution** - Jan Kulisek, KM6NFC

*Amateur Television Help and Information:*

Fred Coe, WB6ASU      wb6asu@icloud.com



**When you purchase at Amazon dot com smile, a portion of your purchase is donated to our club.**

**Go to:**

**<https://smile.amazon.com/ch/23-7072059>**

**ALL MEMBERS ARE INVITED TO JOIN THE FREE CLUB E-MAIL GROUP AT:**

**<https://groups.io/g/MDARC>**

# Message from New President KJ6KYT

The KJ6KYT radio shack



Dear MDARC Family, welcome to 2022. A new year with a new president. I am not sure why I decided to take on the role of president. It just seemed like the right thing to do. I have been a member of the club for over 10 years. I was vice president for 3 years from 2018 to 2020.

You may have noticed that there is no vice president this year. At least not at this time. I hope the club can rectify that. I think we can do this with the support of the Programs Committee. More on that later.

MDARC is a great club with a great message. MDARC wants to encourage innovation in amateur radio, provide public service and educational opportunities, foster goodwill within our community, and have fun in the process. My message is pick up your radio and get on the air. It is a very simple thing to do but for some maybe a challenge.

Some of you may know that the reason I got into ham radio over 10 years ago was because of my involvement with the Community Emergency Response Team (CERT). I have been a member of the City of Martinez CERT for about the same amount of time as I have been a Ham. When I first started to participate in CERT activities, I noticed that many of the leadership within CERT are Hams. That is all I needed to know so I went ahead and got a Technician license in 2010. I only recently obtained the Amateur Extra license in 2021.

I have been a CERT instructor for several years. Mostly training in Martinez. I did at one time help the City of Concord train as well. At this time, I remain dedicated to CERT and emergency communications. I help run radio nets for Martinez and Concord (I am a Concord VIPS and run their simplex net as needed).

Ok so what? I am into EMCOMM. All that means is EMCOMM was my gateway into Ham radio. Now that I have been a Ham for a number of years, I found other ways to enjoy radio. Some refer to what we do as a service. No doubt, many Hams participate in Public Service. I would encourage that. In addition, it has been recognized that Hams can be critical in moving radio traffic during an emergency or a disaster. This is a very important task for Hams. But it is not the only one.

I have come to the conclusion that Ham radio means different things to different people. I believe in the concept of public service and emergency communications. But Ham radio is more than that. Over the coming year, I will share with you some of my adventures in Ham radio. In the meantime, enjoy this great craft.

73, Ed Morales, KJ6KYT

MDARC president



# Programs Committee Seeking Participants

By Ed Morales, KJ6KYT, Club President

Hello MDARC family,

Some of you may know that we established a Programs committee late last year. The main reason for creating this was to take pressure off of the vice president (currently vacant) who is responsible for programs. This, of course, means finding speakers/presenters to speak on topics associated with Ham radio or are of scientific interest from an amateur's perspective. The committee chair will ultimately be the vice president. But I would like to have 2 to 3 others to be part of this committee with a real interest in finding topics and speakers. The goal would be to establish a "pipeline" of speakers and topics. And establish a list of folks who have presented in the past and are willing to do it again. Also, recruit new presenters who some may have seen at other club venues or related activities.

Now that we continue to use a hybrid format, we should be able to increase participation from presenters knowing that they do not necessarily need to travel to Lafayette on a Friday evening. This is especially true for presenters who have been gracious enough to come up from the south bay or the peninsula and so on. That said, I would encourage those who are able to present in person to do so. It would depend on the content and whether the topic is better suited to do in person and the willingness to drive to Lafayette.

Since I was vice president for 3 years, I have established a pretty good database of speakers, many of which have presented more than once at the general meetings. I intend to be a member of this committee but will not chair it. It is my hope that once we establish this committee, we could recruit someone in the club to become vice president upon the approval of the BOD.

Please consider participating in the committee with me. I think it would be a fun and challenging experience.

Hope to hear from some of you soon regarding this important committee.

Happy New Year again and 73.

# SUMMARY OF CLUB 2021 FINANCES AND 2022 BUDGET

This is a short summary of MDARC's 2021 finances and the 2022 budget approved by the Board, which is depicted on the following page. The 2021 budget showed an approved deficit of almost \$10K. Due to an increase in some income sources and some reduction in expenses, MDARC's fiscal year closed with a deficit of only \$736. Fortunately, that leaves most of the 2020 fiscal year surplus as a needed cushion.

When working on the 2022 proposed budget it became evident to the Board that once again spending requests far exceeded anticipated income. Although the 2022 budget shows a deficit of almost \$13K, some worthy requests were deferred, including (but not limited to) Ham Skills Classes, Public Service Support and new Presentation Equipment. Fortunately, the carryover surplus from 2020 will mitigate this year's budgeted deficit without a significant reduction of the club's overall funds.

If you have any questions about MDARC's finances, please email [treasurer@mdarc.org](mailto:treasurer@mdarc.org). Either Gene KG6EYE or I will do our best to answer.

73,

Gene KG6EYE, 2022 MDARC Treasurer

Cathi K2CJW, 2021 MDARC Treasurer

---

Our club wants **you** to help celebrate our 75<sup>th</sup> anniversary in 2022! Please direct any suggestions to Barb Whyson, K6WHY, at the MDARC groups.io electronic mail list page at <https://groups.io/g/MDARC/topics>



# Approved MDARC 2022 Budget

Description	2022 Budget		2022 Budget
<u>INCOME</u>		<b>Membership Department</b>	
Individual/Business Donations	1,000	Equipment purchase	0
Repeater Support Donations	1,000	Misc printing/postage/etc	85
Bank Interest	50	Print/Mail the Carrier & Directory	315
Auction	1,500	Refunds	0
Education - Class fees	1,571	<b>Total</b>	<b>400</b>
Education - Class food sales	0		
Education - Lending Lib Equip Income	0	<b>Outreach</b>	
General Meeting Food Sales	30	Awards	200
Holiday Banquet	3,900	CCC Science Fair sponsorship	700
License Testing	145	Marketing	120
Miscellaneous Revenue	0	Printing/Copying	0
Membership Dues	10,000	Scholarships	0
Newsletter & Membership directory	18	<b>Total</b>	<b>1,020</b>
Raffles	300		
PACIFICON Surplus to MDARC	5,000	<b>Storage Unit</b>	<b>1,729</b>
<b>Total Income</b>	<b>24,514</b>		
<u>EXPENSE</u>		<b>Technical Committee</b>	
<b>Auction Committee</b>		Additional Equipment Purchase	0
Auction payout	0	Association Dues	20
Expenses to run auction	0	EchoLink Annual Admin Fee	40
<b>Total</b>	<b>0</b>	Internet Service	1,200
		Labor	0
<b>Digital Media Committee</b>	<b>450</b>	Repair/replace/maintenance	1,600
		Site Rental	
<b>Education Expenses</b>		North Peak	1,980
Lending Library Equipment Expense	0	South Peak	11,352
Lending Library textbook purchase	72	<b>Total</b>	<b>16,192</b>
Misc expense	250		
In-Person Facility Rent	2,400	<b>Trailer Committee</b>	
Equip Purchase/Virtual Instruct	0	Mechanical	500
<b>Total</b>	<b>2,722</b>	Presentation Equipment	0
		Radio Equipment	0
<b>EmComm Expenses</b>		STEM Supplies	0
Public Service Support	0	<b>Total</b>	<b>500</b>
Meeting Site Rental	0		
Badges Public Service Team	400	<b>Treasurer's Expenses</b>	
Table Banners Public Service Team	200	Accounting Fees	680
<b>Total</b>	<b>600</b>	Bank Fees	25
		Businesss Fees	80
<b>Field Day</b>		Equipment Self-Insurance Fund	700
BBQ/food expense	600	Liability Insurance	450
Site Rental	950	Misc Expenses	750
Toilet Rental	450	PO Box Rental	194
<b>Total</b>	<b>2,000</b>	<b>Total</b>	<b>2,879</b>
<b>Holiday Banquet</b>		<b>Vehicle Committee</b>	
Decorations	150	Van Fuel	300
Gifts	100	Van License & Registration	500
Meal Cost	3,650	Van Liability Insurance	750
<b>Total</b>	<b>3,900</b>	Van Maintenance	400
		Van Parking	1,650
<b>Meeting Expenses</b>		<b>Total</b>	<b>3,600</b>
Field Trips	0		
Food purchases for meetings	50	<b>Total Expenses</b>	37,385
Info/Learning Tables	0	<b>Total Income</b>	24,514
Meeting site rental	998	<b>Balance</b>	<b>-12,871</b>
Presentation expenses	100		
Raffle Expenses	45		
Speaker gifts	200		
<b>Total</b>	<b>1,393</b>		

***Share this Mount Diablo Amateur Radio Club 2022  
Ham License Classes Flyer - Tell your friends so they  
can get a license or upgrade.***

## **Register now for the Following 2022 Amateur Radio License Courses**

- \* All 2022 License *Classes* are scheduled to be held in-person at the Odd Fellows Lodge at 4349 Cowell Road, Concord and simultaneously via Zoom.
- \* A \$15.00 course fee applies to each course.
- \* All classes are held in the evening 7:00 p.m. to 9:00 p.m.
- \* Follow the links below to complete the required registration

### **\*Technician License Course A - 2022**

<https://events.r20.constantcontact.com/register/eventReg?oeidk=a07eixcd4hz2661d3cc&oseq=&c=&ch=>

**Each Tuesday, Jan. 11 - Mar. 1, 2022 (8 sessions)**

### **\* General Class License Course-2022**

<https://events.r20.constantcontact.com/register/eventReg?oeidk=a07eixkicms104e7489&oseq=&c=&ch=>

**Each Tuesday evening, Apr. 13 - Jun. 8, 2021 (9 Sessions)**

### **\*Technician License Course B - 2022**

<https://events.r20.constantcontact.com/register/eventReg?oeidk=a07eixkicn4ad45bcd4&oseq=&c=&ch=>

**Each Tuesday evening, June 28 – Sep. 6, 2022 (8 Sessions)**

**The complete 2022 License schedule and course details  
can be found at:**

<https://www.mdarc.org/activities/education-and-training/class-details>

# Public Service Events 2022

by Larry Loomer, KI6LNB

## **\*Oakland Running Festival Confirmed**

Sunday, March 20, 2022

Running race in downtown Oakland

Radio Coordinator: Mike Pompa mpompa@gmail.com

<https://www.ww6or.com/oakland-marathon-signup>

(Oakland Radio Club)

<https://oaklandmarathon.com/>

## **\*Diablo Trails Challenge - Running Race Confirmed**

Saturday, April 9, 2022

Running race from Castle Rock Park, Walnut Creek

Radio Coordinator: Larry Loomer KI6LNB, larylloomer@yahoo.com

Brazen Racing <http://brazenracing.com/r/diablo.html>

## **MS Walk**

Saturday, April (Tentative)

Walk in Heather Farm Park, Walnut Creek

Radio Coordinator: Pete Harris KE6ZIW pharris125@comcast.net

[http://main.nationalmssociety.org/site/TR/Walk/CANWalkEvents?pg=entry&fr\\_id=28700](http://main.nationalmssociety.org/site/TR/Walk/CANWalkEvents?pg=entry&fr_id=28700)

## **\*Mt Diablo Trail Ride Confirmed**

Saturday, May 7, 2022

Horse ride on Mt Diablo, Clayton, CA

Radio Coordinator: Larry Loomer, KI6LNB <larylloomer@yahoo.com>

<http://www.cmdtra.org> Elaine Baker

## **Ohlone 50k Running Race**

Sunday, May 15, 2022

Running race through four East Bay Parklands

Radio Coordinator: Larry Loomer, KI6LNB <larylloomer@yahoo.com>

<ohlone50k.com>

## **\*Lake Chabot Trail Challenge Confirmed**

Sunday, June 5, 2022

Running race, 5k and ½ Marathon in Castro Valley

Radio Coordinator: Larry Loomer, KI6LNB <larylloomer@yahoo.com>

Event: Race Director: Rachel Leikela Lunt

*(continued on following page)*



## **Berkeley Hills Road Race**

Saturday TBD

Bike race in the East Bay hills

Radio Coordinator: Mark Walsh, KM6XU, mark@km6xu.com

[http://berkeleybike.org/?page\\_id=474](http://berkeleybike.org/?page_id=474)

## **\*Skyline 50k Confirmed**

Sunday, August 7, 2022

Running Race in the Oakland Hills

Race Coordinator: Larry Loomer, KI6LNB <larylloomer@yahoo.com>

Scena Performance <adam.ray@scenaperformance.com>

## **Walnut Festival Twilight Parade**

Saturday, September 17, 2022 (Tentative)

Parade in downtown Walnut Creek

Radio Coordinator: Pete Harris, KE6ZIW pharris125@comcast.net

## **\*Firetrails 100k Confirmed**

Saturday, September 24, 2022

Running Race in the Oakland Hills

Race Coordinator: Larry Loomer, KI6LNB <larylloomer@yahoo.com>

Scena Performance <adam.ray@scenaperformance.com>

## **Round Hill Trail Ride**

Date (TBD)

Radio Coordinator: Elaine Baker

<http://www.natrcregion1.org/>

## **\*Mt Diablo Challenge Bike Ride Confirmed**

Sunday, October 2, 2022

Bike ride up Mount Diablo, Alamo, CA

Race Coordinator: Larry Loomer, KI6LNB <larylloomer@yahoo.com>

Valley Spokesmen Bicycle Club

<http://www.valleyspokesmen.org/>

## **\*Diablo Summit Stomp Confirmed**

Saturday, October 22, 2022

Running Race from Castle Rock Park, Walnut Creek, CA

Radio Coordinator: Larry Loomer KI6LNB <larylloomer@yahoo.com>

Brazen Racing <http://brazenracing.com/r/summitstompmain.html>

# Classic Exchange -- A Vintage Radio Contest

By Mario Dianora, N2AK

Do you have any old equipment from the bygone days of radio? Are you a homebrewer who likes to make nifty low power (QRP) radios or replicas of old rigs? Well the good news is that you can put those pieces on the air in an operating event that will make you feel like you are in another era. That event is called Classic Exchange (CX) and it is held twice a year. The purpose of CX as described in their newsletter is to "*Encourage restoration, operation and enjoyment of older commercial and homebrew ham gear.*"

QSOs (contacts) may be made on the following amateur radio bands: 160 meters, 80 meters, 40 meters, 20 meters, 15 meters, 10 meters, 6 meters and 2 meters.

No vintage gear? ... no problem! All amateurs are invited to participate and get in on the fun no matter what they are using and submit their scores.

The AM/SSB/FM portion will run on Sunday January 23, 2022 and Tuesday January 25, 2022. The CW portion will run on Sunday February 6, 2022 and Tuesday February 8, 2022.

For more information, go to [https://www.classicexchange.org/announcements/CX\\_Rules.pdf](https://www.classicexchange.org/announcements/CX_Rules.pdf)

---

## WINTER FIELD DAY 2022



**The 16th annual Winter Field Day will be held on the weekend of January 29-30, 2022.**

The following text is from the Winter Field Day Association website [www.winterfieldday.com](http://www.winterfieldday.com) :

*Winter Field Day Association (WFDA) is a dedicated group of Amateur Radio Operators who believe that emergency communications in a winter environment is just as important as the preparations and practice that is done each summer during ARRL Field Day but with winter's unique operational concerns. WFDA believes that maintaining your operational skills should not be limited to fair weather scenarios often present during the summer's ARRL Field Day.*

**For further information, go to [www.winterfieldday.com](http://www.winterfieldday.com)**

# NEW Q SIGNALS FOR 2022 !



QLD	I AM IN LOCK DOWN
QUA	I AM QUARANTINED
QPD	I AM IN THE MIDDLE OF PANDEMIC
QTP	I HAVE TOILET PAPER
QHG	I NEED A HUG
QSH	I AM SHELTERING AT HOME
QHS	I HAVE HAND SANITIZER
QSD	I AM SOCIAL DISTANCING
QCV!	I HAVE COVID
QWH	I HAVE WASHED MY HANDS
QWH?	HAVE YOU WASHED YOUR HANDS
QSS	STAY SAFE



# MDARC WEBSITE UPDATE

By Mike Patterson, N6JGA, Digital Media Coordinator

Continuing my occasional blurbs about things on our website, today I'll focus on some digital technology information.

We have seven new pages in our Repeater Systems section about Digital Voice and our new multi-mode repeater, all from the expertise of Jim Moen, K6JM.

## \* **W6CX-DV -- MultiMode Digital Voice Repeater**

<https://www.mdarc.org/activities/repeater-systems/digital-voice>

This is the front page of the sub-section, describing the new repeater

## \* **Comparison of DV Modes available on W6CX-DV**

<https://www.mdarc.org/activities/repeater-systems/digital-voice/comparison-of-dv-modes>

This page describes and compares the three modes available on our new repeater; D-Star, DMR and C4FM (Fusion).

## \* **W6CX-DV -- Using D-STAR**

<https://www.mdarc.org/activities/repeater-systems/digital-voice/d-star>

This page gives more details on the D-Star mode of the repeater and how to use it. There's also two sub-sub-pages:

### -- **W6CX-DV -- D-Star Linking to Reflectors & Repeaters**

<https://www.mdarc.org/activities/repeater-systems/digital-voice/d-star/d-star-linking>

### -- **W6CX-DV -- Registering your Callsign for D-STAR**

<https://www.mdarc.org/activities/repeater-systems/digital-voice/d-star/d-star-registration>

## \* **W6CX-DV -- DMR Mode Information**

<https://www.mdarc.org/activities/repeater-systems/digital-voice/dmr>

This page gives more details on the DMR mode of the repeater and how to use it.

## \* **W6CX-DV -- C4FM Mode for Fusion Radios**

<https://www.mdarc.org/activities/repeater-systems/digital-voice/c4fm-fusion>

This page gives more details on the Yaesu's Fusion mode of the repeater and how to use it.

Finally, we have a few other pages describing digital modes in general. These long pre-date our multi-mode repeater, and give general descriptions of several digital voice and digital data technologies. As they've been there for a few years, some of the information is a little "mature", so a few tweaks will be made soon, again with Jim's advice. You'll find them at:

<https://www.mdarc.org/activities/digital-systems>

There are two sub-pages giving more information on DMR and NBEMS at (respectively):

<https://www.mdarc.org/activities/digital-systems/dmr> and

<https://www.mdarc.org/activities/digital-systems/nbems>



# Choosing a Digital Mode and a Radio

By Jim Moen, K6JM

I do have different mode radios and use those 3 Digital Voice (DV) modes, and they each have their strong points. A key theme with all of them is that much of the fun of DV comes from their networks and connection points, whether those are called reflectors, talkgroups or rooms.

## D-STAR

Built for amateur radio, so the identifier is your callsign. For that reason, your callsign always travels along with each transmission and you actually don't have to id verbally (though you should to retain the habit). There is a moderate learning curve, but simpler than DMR, particularly when programming a new radio. Radios are really good, but quite a bit more expensive than DMR radios. Most are made by ICOM, but Kenwood has made a really nice HT (though there are current supply problems due to chip shortage).

D-STAR as designed by ICOM supports only connections using Callsign Routing. It sounds neat – the network remembers where you were last heard (a repeater or a hotspot), and your friends can route their transmissions there using your callsign. The problem is many, many D-STAR users world-wide have not really learned how to respond to callsign-routed calls, so it is much less useful than you'd think. That is why REF reflectors were invented. Your repeater or hotspot can be linked to a reflector and can hear and talk to all the others on linked-in repeaters or hotspots. There are 4 different types of reflector protocols. Hotspots can access all of them, and some repeaters can too, but many repeaters only access the most popular type, those named REFxxxxx. Bottom line – D-STAR is first class and versatile. The networks offer a huge variety of places to connect and talk.

## DMR

DMR was developed for commercial land-mobile – police & fire, corporate mobile communications, etc. The identifier is a 7-digit DMR id which any ham license-holder can request and put into their radios, so this is not a big deal, though in the US you do need to id every 10 minutes. The two really important features of DMR are: 1) DMR radios are made by many manufacturers which compete on price, so competition means you can get a good DMR radio for much, much less than a D-STAR or Fusion radio; 2) DMR networks connect to TalkGroups. These end up being like reflectors, except the user of the radio decides which talk group to transmit on (as opposed to having the repeater or hotspot be linked to a reflector). The difference leads to a lot of flexibility, but also some complexity. I really like talkgroups, but I hate having to program a new DMR radio (which I just did yesterday). The programming info for DMR radios is saved in a file on your computer and is called a co-deplug (Motorola term). DMR's complexity goes back to it having been developed for a commercial/government market where the end-users were not asked to do anything technical – police officers should not have to become technical experts. So Motorola designed the radios and programming software to be done by professionals who could configure the radios to the organizations' needs, then install them. These pros are trained and have become experienced in all things DMR. It stands to reason programming a DMR radio is not all that simple.

*(continued on following page)*

DMR's complexity goes back to it having been developed for a commercial/government market where the end-users were not asked to do anything technical – police officers should not have to become technical experts. So Motorola designed the radios and programming software to be done by professionals who could configure the radios to the organizations' needs, then install them. These pros are trained and have become experienced in all things DMR. It stands to reason programming a DMR radio is not all that simple. That is not to say hams can't master it. My recommendation is to get a hold of a working code-plug and use that as your starting point. Just realize it will take more time to get up and running than D-STAR or Fusion.

Bottom line – DMR radios are less expensive than other DV mode radios. And there are many varieties of talkgroups that you can choose to talk to. It is an excellent DV mode, as long as the extra setup-time is acceptable to you.

## **Fusion**

Yaesu generally wants to lead, not follow, so their DV mode is architecturally different from both D-STAR and DMR. Yes, they have their own network (Wires-X) and each meeting place is called a room. But rather than asking people to store info about the network and available rooms in each user's radio, Fusion expects the network to store that info. So you basically have almost no DV-settings to worry about. Like analog FM, you just need to have a memory that gets you to your target repeater or hotspot, and from then on, you can search for rooms by having the radio ask the network to do the search. That means setup and learning curve when getting a new radio are very quick and easy. This is a big deal and a big advantage.

In my experience, compared to both D-STAR and DMR, there are fewer possible places to make connections, but there are still a lot and many are interesting.

Yaesu radios are relatively expensive, especially compared to DMR radios, but they are well-designed and well-built. So the overall experience is good.

I am not a ham obsessed with hi-fi over RF – my standard is intelligibility. I find all three DV modes you mentioned to be easy to understand. Yaesu Fusion supports both narrow and wide band. Of course wide is better audio quality, but even narrow is very slightly better (in my opinion, and others may disagree) than the other 2 modes. But I personally would not choose a mode based on that, since the difference is slight and all are excellent at intelligibility.

## **Wrapping Up**

I like all three modes. I personally use D-STAR the most, since I really like the concept of reflectors. They are easy to use and provide an incredible variety of choices of places and people to talk to.

No matter which mode you go with, I predict you will have fun. Many people start out with the radio and access repeaters to get started. Most repeaters make it easy for users to connect the repeater to other network places when the repeater is not otherwise busy, but at some point, people who really get into DV get themselves a hotspot so they have full control over linking/connecting without bothering others. And hotspots these days support all the DV modes you mentioned and more.

What often happens is people start with D-STAR using their nearby repeater. Then the following year they get a hotspot and use it just for D-STAR. Then they break down and buy a DMR radio and configure their hotspot for both DV modes. And some then get a Fusion radio, etc.

I hope some of the above helps. I purposely did not muddy the waters with bridges and transcoding. It is possible to use a radio for a given DV mode and connect it to a network bridge to another mode's room, talk-group or reflector. Hotspots can now do a lot of that too. That is all useful for those who want just one DV-mode radio. So you should be aware of this capability, but I would pick your mode and radio-type first, and learn about bridges later on.

# W6CX DIGITAL UPDATES

By Jim Moen, K6JM

The MDARC website has been updated to provide info about the new W6CX-DV repeater. There's an intro page about the repeater's digital voice capabilities, and specific pages for D-STAR, DMR and YSF/C4FM.

There are two ways to get there:

Directly: <https://www.mdarc.org/activities/repeater-systems/digital-voice>

Via Menus:

- <https://www.mdarc.org>
- If you don't see menus on left, click the "hamburger" (3 horizontal lines at top-left)
- Then: Activities > Repeater Systems > Digital Voice

For those of you interested in digital voice modes like D-STAR, DMR and Yaesu/C4FM, Mike Patterson, N6JGA has set up a new groups.io group called W6CX-DigitalVoice.

Please feel free to join by going to <https://groups.io/g/W6CX-DigitalVoice/join>

In the Name field, please enter your name along with your callsign if you have one.

For those who have subscribed to the W6CX-Dstar group, we encourage you to join the new DigitalVoice group. We hope to move all DV posts over to the new group and eventually shut down the W6CX-Dstar group.



# W6CX D-STAR UPDATE

By Jim Moen, K6JM

The W6CX-DV Dashboard has been updated with a new option. To view a summary of callsign registration information *for each of our supported DV modes*, just go to our DV Dashboard at <http://dv.mdarc.org> and click on the **Registration** link near the top of that page.

**Special notes for D-STAR users whose callsigns are registered at the W6CX system**  
You can now request updates to your callsign's registration info and/or add/change/delete terminals. That capability has been down since November 20, 2021 when we upgraded our W6CX-DV repeater system.

Although the new system does not have D-STAR Callsign Registration available online, you can easily get it changed by emailing us. Visit the Dashboard (above link) and click Registration for details.

**We encourage all D-STAR users whose callsigns are registered at W6CX to “move” their registrations to another gateway such as REGIST. The process is simple:**

- Visit <https://dstar.info/query.html> , enter your callsign and print off and save your current registration information
- Email W6CX-DV Admins at [dstar@mdarc.org](mailto:dstar@mdarc.org) and request that your registration be removed from W6CX
- Visit <https://regist.dstargateway.org/Dstar.do> and click the Register button to re-register your callsign. When approved, usually within a day or two, sign onto your new account and add the same terminal(s) that were set up on your W6CX registration. If you have any problems, feel free to ask questions by emailing us. We plan to keep the W6CX registration database available until November, 2022. We are doing this so that users can move their callsigns at a time that's convenient for them.



# MDARC Board of Directors Meeting November 1, 2021

Held at Zoom online

1. Call to Order: The meeting was called to order at 7:02 pm by Larry Bradley KK6QPE after it was determined that there was a quorum for conducting Club business.
2. Roll Call: Attendees via Zoom screen shot:  
Officers: Larry Bradley KK6QPE, President; Jan Kulisek KM6NFC, Vice President; Brian Lotter KM6NGS, Secretary; Cathi Walton K2CJW, Treasurer; Ron Bunch W4FEK, Emergency Coordinator; Trevor Hall WA6JAU, Director at Large; Mike Warren W6MEW, Director at Large; Cal Vasquez, K6VT, Director at Large.  
Committee Chairs/Coordinator: Mike Patterson N6JGA; Jim Tittle K6SOE; Larry Loomer KI6LNB; Jim Siemons W6LK; Dick Wade WM6G; Dave Piersall N6ORB; Pete Harris KE6ZIW  
Guests: Barb Whysong K6WHY; Dave WA6UHA; Gene KG6EYE; Bill KI6HCA; Misa Siemons KJ6BUE; Robert Green.
3. Approval of Minutes from Last Meeting: The minutes of the October, 2021 Board Meeting were approved without objection. The minutes of the General Meeting held on September 17 were also approved without objection.
4. Adopt Tonight's Agenda: The agenda for this meeting was approved.
5. Officer reports:
  - a. President Larry Bradley KK6QPE – Applauded the PACIFICON committee for a great job in spite of all the hurdles that they had to overcome. He stated that he wants to add a presentation committee to support the Vice President because, finding speakers is a tough task. He left the appointment of the committee members to the next club President.
  - b. Vice-President Jan KM6NFC – He has several possibilities but no firm commitment for a speaker at the November meeting. Mike N6JGA reminded Jan that the ARRL has a number of prerecorded learning webinars and an extensive YouTube channel that could be played in case we don't have a live speaker.
  - c. Secretary Brian KM6NGS – Nothing to report other than what will be discussed under Unfinished Business item 7.
  - d. Treasurer Cathi K2CJW presented a summary of the October 2021 monthly report. She then presented the detailed spreadsheet. There were no questions for Cathi.
6. Emergency Coordinator Report: Ron Bunch W4FEK said that we are very fortunate, things are going “sweet and smooth” and we received no calls in the past couple of weeks.
7. Directors at large reports:  
Mike Warren W6MEW – Nothing to report. Trevor Hall WA6JAU – Nothing to report.  
Eric Ferguson KA6USJ – Larry KK6QPE reported that Eric is in the hospital. Cal Vasquez K6VT – Nothing to report.
8. Committee Reports:
  - a. Education and Training: John AF6RJ sent his report via email and Larry KK6QPE sent it out as an attachment to the meeting announcement for this meeting.
  - b. Pacificon: Jim W6LK reported that in spite of all the difficulties, PACIFICON will probably be able to send a small amount of money to MDARC. He went on to praise the work done by the members of the Committee. Misa KJ6BUE thanked Mike N6JGA and Barb K6WHY for all of the backup that they provided for her. Jim W6LK added that Mike N6JGA was “the hardest of all the workers” throughout the year as well as at PACIFICON. Many people were commended for their contributions to the meeting and many reports were made of vendors, and others, who had positive feedback about their experiences at PACIFICON.
  - c. Digital Media: Mike Patterson N6JGA was happy to report that our usage of Google Drive is at 57% of the capacity we have. He has submitted a budget to Cathi for possibly moving our website to another provider and also for purchasing more storage space if necessary. The cost of increasing storage at Google is \$20 per 100 GB per year.
  - d. Outreach: Dick Wade WM6G said everything is going smoothly and that there is nothing of note to report.

f. Technical: Jim Tittle K6SOE reported that we have a new landlord on South Peak. They are Everest Infrastructure Partners (EIP Holdings LLC) out of Pittsburg PA. They own quite a bit of real estate in the US. They don't have any local infrastructure out here yet but Jim did get some support from a person, with a Sacramento area code in his phone number, during the generator failure event. The permanent generator has not been repaired yet but he does not expect any failures as long as they keep fuel in the temporary generator. The next technical committee meeting will be held this coming Saturday where they will discuss multi-mode repeaters on the hill. The ATV operation at PACIFICON was a success.

g. Auction: No report expected.

h. Vehicle (MDARC-1): Jim K6SOE reported that MDARC-1 performed very well at PACIFICON and that he will return it to Roadie's in the coming week, or so.

i. Communications Trailer: Mike W6MEW had nothing to report.

j. Field Day: No report expected.

k. License Testing: Larry KI6LNB reported that there were 61 candidates at PACIFICON 86% of whom passed.

l. Public Service: Larry KK6QPE reported that Lisa has asked to be relieved of the Public Service coordinator position and that he will leave it to the next club President to fill it.

m. Membership: Jan KM6NFC reported that there are still some issues to be ironed out in the Membership Portal. He will invite some people to a meeting around November 11, to demonstrate it and also to discuss the possible movement of our website from Google. He is hoping to deploy the Membership Portal in early 2022 but noted that it will take another year to sort out the historical membership part. Past due members will be dropped from the membership list at the end of 2021. Mike N6JGA asked when the renewal campaign for 2022 will start. Jan replied that he will send out emails mid November 2021. Dick WM6G asked for an updated email list. Jan demonstrated how to get it from the portal and agreed to also send a new list to Dick.

n. Election Committee: Dave reported that they have names for: President, Ed Morales, KJ6KYT; Vice President, open; Secretary, Brian Lotter KM6NGS; Treasurer, Gene Sylls KG6EYE; Emergency coordinator, Larry Loomer KI6LNB; Director-at-Large, Trevor Hall WA6JAU, Incumbent; Director-at-Large, Larry Bradley KK6QPE. Mike N6JGA asked when the ballots will go out. Dick replied that the paper ballots will go out tomorrow and that the emailed ballots will go out via constant contact on Friday.

o. Scholarship: a report was not expected.

p. Radio Lending Library: a report was not expected.

q. Holiday Banquet: a report was not expected.

r. 75-year Celebration Committee: Barb K6WHY reported that she hasn't gone over the list again because everybody has been so busy, but that one thing has occurred to her. When she took her Extra test up in Sonoma at Valley of the Moon, they offered her a free one-year membership. She thought that we could perhaps do the same as part of our anniversary celebration. This would encourage people to continue their membership in year 2 and beyond.

s. Presentation Committee: This was discussed under 5 a.

## 9. Future Meetings:

General Meeting 11/19/21 in-person, in the Sanctuary of Our Saviors Lutheran Church and on Zoom.

Board Meeting 12/06/21 on Zoom only.

In lieu of the Banquet, there will also be a General Membership meeting on the 3rd Friday of December. The Kilroy and Ham of the Year awards will be presented at the meeting.

## 10. Unfinished Business:

10.1 Update for any changes for OSLC meeting requirements: Larry stated that there are no changes in requirements for in-person meetings but that Lauren Styles WA6CIE had called him to advise that the church is going to raise our rent from \$100.00 to \$142.50. Larry KK6QPE felt that this was reasonable since the going rate for this rent is around \$300.00. He also said that we have a usage credit, which means that we will only need to start paying the new rental rates around March or May of 2022.

10.2 MDARC Election: This was dealt with in section 8 n above.

10.3 Requesting the Board's guidance on where to store radio equipment that has been donated to MDARC. Dick said that there are no new offers right now but if anybody offers a donation now, he will advise them to keep the donation until April because he has no more storage space. Barb K6WHY offered a storage space of 3ft x 5ft x 10 ft. Dick will contact her when he gets more equipment.

10.4 Membership Directory; This was covered in section 8 m above but Larry KK6QPE wanted to get a delivery date, since we have essentially gone a whole year without a directory, and we are obligated to provide one according to the bylaws. Jan KM6NFC said that he would email it to the membership now.

10.5 75th year celebration, top 5; This was discussed under item 8 r above.

10.6 HRO advertisements in the Carrier; Larry KK6QPE feels that this is a non-issue since we get a lot of support from them. They handed out 2500 Pacificon flyers, 1000 from the Sacramento store. He requested permission to remove this item. Hearing no objection, it will be removed. Mike N6JGA suggested that someone contact HRO to get an updated advertisement. Trevor WA6JAU mentioned that we have not received an award radio from HRO since 2014.

10.7 Roadie's storage visit towards implementing MDARC's Document retention policy – report from 10/29/21 visit. Brian KM6NGS showed a list of contents of the filing cabinet that was made during the visit. Larry KK6QPE then showed the Record Retention Policy dated 05/03/2021 and said that he would send it out to the Board. He noted that we did not find a lot of the items that are on the list. He will seek that the advice of the Board on how to store the required documents.

10.9 Updating MDARC By-Laws for grammatical and content considerations: Larry KK6QPE will remove this item from the agenda and will work on it.

## 11. New Business:

11.1 2022 Budget preparation. Larry KK6QPE showed the budget preparation form that Cathi has. All Committee chairs need to send information to Cathi so that this can be done and approved by the Board before the end of the year.

11.2 December General Meeting [12/17/21]: Kilroy and Ham of the Year awards. This was mentioned under Future Meetings above.

11.3 MDARC-owned QuickBooks for Treasurer and possible Laptop. Cathi advised that she is using an MDARC owned version of QuickBooks 2013 but that it will only run on Windows 7. She has provided for a new version in the budget. It was pointed out that buying a laptop will triple the expense. It was concluded that the new version of QuickBooks should be purchased and that the Treasurer will need to be able to run the new version. Larry KK6QPE then asked about the backup files from QuickBooks 2013. Cathi stated that it is now possible to import QuickBooks 2013 backups into the new version of QuickBooks so we should not be losing anything.

11.4 Equipment to support virtual and in-person License Courses. Larry KK6QPE stated that he, Mike W6MEW, and John Primus AF6RJ have had discussions and have concluded that some new equipment would add to the sustainability of our courses. The recent Amateur Extra Class had shown that the Zoom part of the class had made it successful and that this is something that we would want to go forward with in the future. Cathi added that some members are only able to attend General meetings if they are virtual.

Larry KK6QPE asked if anybody had anything else for the good of the order and hearing none, asked for a motion to adjourn the meeting.

## 12. Adjournment:

Mike W6MEW seconded by Cathi K2CJW, proposed a motion to adjourn. All members voted in favor.  
Meeting Adjourned at 8:44 pm

Respectfully submitted by  
Brian Lotter KM6NGS

Secretary, on November 21, 2021. These meeting minutes were signed digitally due to the digital meeting.

# MDARC General Meeting Minutes November 19, 2021

Held as hybrid in-person and Zoom meeting.

1. Call to Order: The meeting was called to order at 7 pm by the MDARC President Larry Bradley KK6QPE

- a. The president welcomed all attendees.
- b. The president indicated the location of exits and restrooms
- c. The president welcomed two new members.
- d. There were no visitors

2. Approval of Minutes from the Last Meeting: The October minutes were approved.

3. Election of the Board Officers:

a. Nominations; Dick WM6G announced the slate of candidates; President Ed Morales KJ6KYT; Vice President, No candidate; Secretary, Brian Lotter KM6NGS; Treasurer, Gene Sylls KG6EYE; Emergency Coordinator, Larry Loomer KI6LNB; Director at Large, Trevor Hall WA6JAU; Director at Large, Larry Bradley KK6QPE.

Dick asked the Zoom attendees, who had not already voted, to send him their votes in a private message on Zoom. Dick also invited those present, who had not already voted, to vote for the Slate. There were 7 votes for the Slate. Dick then went to tabulate the votes.

4. Officer Reports:

- a. The President had no report. He announced that Eric Ferguson KA6USJ had passed away this last week.
- b. The Vice President had no report.
- c. The Secretary had no report.
- d. The Treasurer Cathi K2CJW presented the Financial Report for October. MDARC Checking account income \$881.68, Expenses \$1,418.00, Monthly Total -\$532.62. MDARC Checking Balance 35,040.82. MDARC Savings \$28,369.16. Total MDARC Checking/Savings \$63,409.98. Equipment self-insurance \$58,215.91, Pacificon Balance \$22,505.84. Total assets \$144,131.73.
- e. The Emergency Coordinator Ron Bunch W4FEK stated nothing was reported to him and that he could not find any issues so we're good.

5. Committee Reports – Standing:

Larry KK6QPE mentioned that the committee reports had been made during the Board Meeting and would not be presented in this meeting. This was done so that there would be more time for tonight's presentation. He asked if any of the chairs had something that they wished to share at this meeting.

f. Pacificon. Larry KK6QPE asked Lauren Styles W6CIE to present the Pacificon Grand Prize. Lauren presented an ICOM 718 HF transceiver to the winner, Jim Rawlings AF6VF.

g. Membership. Jan KM6NFC explained that the new Membership Portal is still under "heavy" development but that the extra work should bring some fruit. In the next week or so, he plans to invite some general members to test the new portal. He will send another reminder to those that have not renewed their membership for 2021 and that the cutoff date is December 31, 2021. Membership renewals can be paid on the MDARC website as before but the payment gateway will be moved to the Membership portal during the next year. New members pay \$30 for January to October 1st but from October 1st, they pay \$45 for October to the end of the following year.

6. Unfinished Business:

a. Announcement of election results; Dick WM6G announced that the Slate had been unanimously elected and presented those that were in attendance. Larry KK6QPE asked the election committee to stand and thanked them for their service.

7. New Business: There was no new business.

8. Adjourn Business meeting: The business portion of the meeting was adjourned at 7:35 pm.

Speaker Introduction by Jan Kulisek KM6NFC: Pete Harris KE6ZIW – "What is Ham Radio: introduction to the Magic?"

Respectfully submitted by Brian Lotter KM6NGS, Secretary, on December 5, 2021.





# HAM RADIO OUTLET

WWW.HAMRADIO.COM

**HRO Florida Now Open!**



## IC-9700 | All Mode Tri-Band Transceiver

• VHF/UHF/1.2GHz • Direct Sampling Now Enters the VHF/UHF Arena • 4.3" Touch Screen Color TFT LCD • Real-Time, High-Speed Spectrum Scope & Waterfall Display • Smooth Satellite Operation



## IC-718 | HF Transceiver

• 160-10M\*\* • 100W • 12V operation • Simple to use • CW Keyer Built-in • One touch band switching • Direct frequency input • VOX Built-in • Band stacking register • IF shift • 101 memories



## ID-4100A | VHF/UHF Dual Band Digital Xcvr

• Compact, Detachable Controller for Flexible Installation • DV/FM Near Repeater Search Function • Apps for iOS™ and Android™ devices • Wireless Operation with VS-3 & UT-137 Bluetooth® Headset & Module • MicroSD Card Slot



## IC-7851 | HF/50MHz Transceiver

• 1.2kHz "Optimum" roofing filter • New local oscillator design • Improved phase noise • Improved spectrum scope • Dual scope function • Enhanced mouse operation for spectrum scope



## IC-705 | HF/50/144/430 MHz All Mode Transceiver

• RF Direct Sampling • Real-Time Spectrum Scope and Waterfall Display • Large Color Touch Screen • Supports QRP/QRPP • Bluetooth® and Wireless LAN Built-in



## IC-2300H | VHF FM Transceiver

• 65W RF Output Power • 4.5W Audio Output • MIL-STD 810 G Specifications • 207 alphanumeric Memory Channels • Built-in CTCSS/DTCS Encode/Decode • DMS



## IC-7300 | HF/50MHz Transceiver

• RF Direct Sampling System • New "IP+" Function • Class Leading RMDR and Phase Noise Characteristics • 15 Discrete Band-Pass Filters • Built-In Automatic Antenna Tuner



## IC-7100 | All Mode Transceiver

• HF/50/144/430/440 MHz Multi-band, Multi-mode, IF DSP • D-STAR DV Mode (Digital Voice + Data) • Intuitive Touch Screen Interface • Built-in RTTY Functions

## IC-V86 | VHF 7W HT

• 7W Output Power Plus New Antenna Provides 1.5 Times More Coverage • More Audio, 1500 mW Audio Output • IP54 & MIL-STD 810G—Rugged Design Against Dust & Water • 19 Hours of Long Lasting Battery Life • 200 Memory Channels, 1 Call Channel & 6 Scan Edges



## IC-7610 | HF/50 MHz All Mode Transceiver

• Large 7-inch color display with high resolution real-time spectrum scope and waterfall • Independent direct sampling receivers capable of receiving two bands/two modes simultaneously



## IC-2730A | VHF/UHF Dual Band Transceiver

• VHF/VHF, UHF/UHF simultaneous receive • 50 watts of output on VHF and UHF • Optional VS-3 Bluetooth® headset • Easy-to-See large white backlight LCD • Controller attachment to the main Unit



## IC-R30 | Digital/Analog Wideband Xcvr

• 100 kHz to 3.3 GHz Super Wideband Coverage • P25 (Phase 1), NXDN™, dPMRTM, D-STAR Mode • 2.3" Large LCD Display & Intuitive User Interface • MicroSD Card Slot for Voice & Data Storage • USB Charging & PC Connection



## IC-R8600 | Wideband SDR Receiver

10 kHz to 3 GHz SuperWideband Coverage • Real-time Spectrum Scope w/Waterfall Function • Remote Control Function through IP Network or USB Cable • Decodes Digital Inc P25, NXDN™, D-STAR • SD Card Slot for Receiver Recorder



## ID-5100A Deluxe

### VHF/UHF Dual Band Digital Transceiver

• Analog FM/D-Star DV Mode • SD Card Slot for Voice & Data Storage • 50W Output on VHF/UHF Bands • Integrated GPS Receiver • AM Airband Dualwatch

## ID-52A | VHF/UHF D-STAR Portable

• Bluetooth® Communication • Simultaneous Reception in V/V, U/U, V/U and DV/DV • Enriched D-STAR® Features Including the Terminal Mode/Access Point Mode • UHF (225~374.995MHz) Air Band Reception

*This device has not been approved by the F.C.C.*



**5 Ways to Shop!**

- RETAIL LOCATIONS – Store hours 10:00AM - 5:30PM - Closed Sunday
- PHONE – Toll-free phone hours 9:30AM - 5:30PM
- FAX – All store locations
- ONLINE – WWW.HAMRADIO.COM
- MAIL – All store locations

**ICOM**

ANAHEIM, CA  
(800) 854-6046

SACRAMENTO, CA  
(877) 892-1745

PORTLAND, OR  
(800) 765-4267

PHOENIX, AZ  
(800) 559-7388

MILWAUKEE, WI  
(800) 558-0411

WOODBIDGE, VA  
(800) 444-4799

WINTER SPRINGS, FL  
(800) 327-1917

PLANO, TX  
(877) 455-8750

SAN DIEGO, CA  
(877) 520-9623

DENVER, CO  
(800) 444-9476

ATLANTA, GA  
(800) 444-7927

NEW CASTLE, DE  
(800) 644-4476

SALEM, NH  
(800) 444-0047

WWW.HAMRADIO.COM

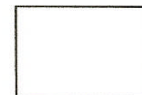
\*\*Except 60M Band. The Icom logo is a registered trademark of Icom Inc. Toll-free including Hawaii, Alaska and Canada. All HRO 800-lines can assist you if the first line you call is busy, you may call another. Prices, specifications and descriptions subject to change without notice.





## The Carrier

Newsletter of the Mt. Diablo Amateur Radio Club  
P.O. Box 23222  
Pleasant Hill, CA 94523  
[www.mdarc.org](http://www.mdarc.org)



## FIRST CLASS

<https://www.facebook.com/mdarc.org>

### W6CX Nets

M-F 5:42 am Morning Muster 147.060+ 224.780- 441.325+

M-F 6:10am Commuter Net 147.060+ 224.780- 441.325+

Monday 8:00 pm SATERN Net 147.060+

Tuesday 7:30 pm Fat City 10 meter USB/CW Net 28.420 MHz

Tuesday 8:00pm Digital Practice Net 147.060+ 224.78- 441.325+

Wednesday 7:00 pm SKYWARN Net 147.060+

Thursday 7:30 pm MDARC Club Net 147.060+

Thursday 8:00 pm Digital Amateur Television Net 147.060+

### Club FM Repeaters

147.060 MHz + / PL 100Hz

224.780 MHz - / PL 77Hz 441.325 MHz + / PL 100Hz

EchoLink: W6CX-R /133896, IRLP: 3057

<https://www.broadcastify.com/listen/feed/25334>

D-STAR 145.000 offset plus 2.5 MHz

<https://w6cx.dstargateway.org/>

DATV Internet Stream: <http://w6cxatv.mdarc.org/>

**YouTube Channel: Media MDARC**

### Contra Costa County Emergency Communications Nets Every Thursday

6:35 pm HF Countywide 3.893 MHz LSB

6:45 pm West County 145.110-- (82.5 PL)

7:00 pm Central County 145.680 Simplex

7:00 pm East County 146.535 Simplex

7:00 pm South County 147.480 Simplex

7:20 pm Countywide 145.490-- (107.2 PL)

or 147.735-- (107.2 PL)

or 145.410-- (107.2 PL)

### Concord Auxiliary Radio Emergency Service (CARES)

Wednesday 8:00pm 147.405 Simplex

### Digital Amateur Television Repeater

Digital ATV Output: 1244.500

Digital ATV Inputs: 1292.500, 1273.0, 917.0, 430.0

Analog ATV Input: 1270.000 FM (PL 192.8)

## January and February 2022 Club Calendar

- |                           |  |
|---------------------------|--|
| Friday January 21, 2021   | 7:00pm - MDARC General Meeting - Our Saviors Lutheran Church 1035 Carol Lane Lafayette<br>Also available on zoom.us via link sent from groups.io or watch on DATV repeater |
| Saturday February 5, 2022 | 8:00am - MDARC Technical Committee Meeting - VIA VIDEO CONFERENCE  |
| Monday February 7, 2022   | 7:00pm - MDARC Board of Directors Meeting - VIA VIDEO CONFERENCE   |
| Friday February 18, 2022  | 7:00pm - MDARC General Meeting - Our Saviors Lutheran Church 1035 Carol Lane Lafayette   |